Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338
	)	
Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	)	CC Docket No. 96-98
	)	
Deployment of Wireline Services Offering Advanced Telecommunications Capability	)	CC Docket No. 98-147
	)	

COMMENTS OF THE FIBER-TO-THE-HOME COUNCIL

I. EXECUTIVE SUMMARY

1. According to Section 706 of the 1996 Telecommunications Act, the Federal Communications Commission (hereafter referred to as the FCC or the Commission) has the responsibility to enable and encourage the deployment of advanced telecommunications capabilities in a reasonable and timely manner. Fiber-to-the-home (FTTH) is one of the only broadband solutions that meets this definition of advanced telecommunications capability, does not rely on legacy network facilities, and provides the necessary bandwidth for a future-proof, truly broadband infrastructure.

2. FTTH provides an extraordinary increase in bandwidth per network investment dollar than copper or coaxial technologies, yet it is not being deployed by the incumbent local exchange carriers (ILECs) in a reasonable, timely, or significant manner. Numerous ILEC officials have publicly stated that regulation is the most significant barrier to their investment in FTTH broadband solutions.

3. To ensure the American consumer has the ability to benefit from unrealized FTTH networks, the Fiber-to-the-Home Council (hereafter referred to as the FTTH Council) recommends that the Commission find to remove FTTH deployments from the Section 251 unbundling, resale, and wholesale pricing rules. This determination would allow the Commission to meet its responsibility under Section 706 of the 1996 Telecommunications Act to encourage the deployment of advanced telecommunications capabilities for the benefit of Americans consumers.

II. INTRODUCTION

4. These comments are being submitted by the FTTH Council in response to the Commission's Notice of Proposed Rulemaking "*In the Matter of Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*" CC Docket No. 01-338, "*In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*" CC Docket No. 96-98, and "*In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability*" CC Docket 98-147.

5. The FTTH Council is an association of companies working to accelerate the deployment of advanced broadband networks throughout America. The FTTH Council currently has 68 member companies representing the entire FTTH value chain, from incumbent and competitive service providers to passive and active equipment manufacturers to content providers to construction companies to electronics manufacturers to municipalities. The FTTH Council's member companies are listed in Appendix A. It is the FTTH Council's position that investment in FTTH systems by all telecommunication carriers, both ILECs and Competitive Local Exchange Carriers (CLECs), is being significantly hampered by regulation that is subject to review in this proceeding. The FTTH Council believes the Commission should take immediate action to remove this barrier.

III. THE FCC IS REQUIRED BY SECTION 706 OF THE 1996 TELECOMMUNICATIONS ACT TO ENCOURAGE THE DEPLOYMENT OF FTTH

6. It is the FTTH Council's belief that the Commission has an obligation under Section 706 of the 1996 Telecommunications Act to "…encourage the deployment on a reasonable and timely basis of

advanced telecommunications capability…"[1]. Moreover, "advanced telecommunications capability" is defined by statute as "broadband" capability that can deliver voice, data, and video bi-directionally. The statutory definition states:

> "The term 'advanced telecommunications capability' is defined without regard to any transmission media or technology, as high-speed, switched broadband telecommunication capability that enables users to originate and receive high quality voice, data, graphics, and video telecommunications using any technology."[2]

It is the FTTH Council's opinion that FTTH meets this definition of advanced telecommunications capability. FTTH is not only more than capable of providing voice, data, and video bi-directionally today, but it also has the capability to meet future growth in telecommunication bandwidth requirements. Therefore, according to Section 706 of the 1996 Telecommunications Act, the Commission is required to encourage FTTH deployments.

IV. DESPITE COST PARITY, IMPROVED MAINTENANCE ECONOMIES, AND BETTER REVENUE GENERATION CAPACITY, FTTH IS NOT BEING DEPLOYED IN A SIGNIFICANT OR TIMELY MANNER

7. Currently, there are approximately 15,000 homes connected by FTTH networks in the United States today. This number represents less than .02% of the nation's total residential access lines. This extraordinarily low percentage is rather remarkable for several reasons:

a. First, for several years FTTH network solutions have been nearly equivalent in cost to copper or coaxial solutions, particularly in 'green field' builds. However, electronic costs have continued to come down. Today, FTTH solutions are now at full cost parity with copper and coaxial solutions for voice, video, and data services. This is evidenced in Paceon Corporation's recently filed comments to the FCC, where it shows FTTH is less expensive than copper DSL solutions when comparing first installed costs.[3]

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[1] 47.U.S.C.157 NT, *1996 Telecommunications Act*, Section 706 (1996).

[2] Ibid.

[3] Comments to the FCC filed by Paceon Corporation "*In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*", CC Docket No. 98-146.

b. Second, FTTH network solutions are less expensive to maintain than equivalent copper or coaxial solutions. According to a recent report by Financial Strategies Group, fiber deployed in a FTTH solution has an annual failure rate of .01% while the copper in a digital subscriber line solution has an annual failure rate in the loop of 16.8% to 19%.[4]

c. Third, due to the enormous advantage in bandwidth, FTTH solutions enable many more revenue-generating opportunities than copper or coaxial network solutions. In fact, according to one recently released report:

> "On a per subscriber basis, FTTH will offer the highest revenue stream due to the wider variety of services that will be supported, as well as the provider's desire to recover the cost of the deployment. ADSL supports the lowest per subscriber revenue due to the lower capacity for video distribution."[5]

V. REGULATION, SPECIFICALLY THE UNBUNDLING, RESALE, AND WHOLESALE PRICING REQUIREMENTS IN SECTION 251 HAVE DRAMATICALLY HINDERED INVESTMENT IN FTTH BY ALL TELECOMMUNICATIONS CARRIERS

8. The list located at Appendix B lists the FTTH deployment either completed or planned in the United States to date. This chart is based on publicly-available information and is not necessary all-inclusive. However, it does represent the best understanding of the FTTH Council's 68 member companies. Interestingly, of the approximately 15,000 homes connected by FTTH networks, 38% have been in small or rural communities and 41% have been in select new home developments while only one ILEC has completed an operational FTTH build to date. A more detailed review of the chart shows two interesting but very concerning observations:

a. First, ILEC FTTH builds only account for 3% of the total FTTH builds nationwide. The ILECs percentage of FTTH access lines is even lower, less than 1%. This seems very low considering the numerous advantages fiber provides as illustrated in paragraphs 8, 9, and 10 of this document. According to representatives from the ILECs, this number is exceedingly low

[4] Financial Strategies Group, *Analyzing Broadband Technologies*, p. 9 and 15 (June, 2001).

[5] Cahners In-stat, *Master Planned Communities: The Leading Edge for Broadband Services*, p. 47 (Feb, 2002).

because regulation has hampered their investment in FTTH deployments. Several senior ILEC officials have provided public statements to support this observation.

b. While publicly discussing concerns with the Illinois Commerce Commission, SBC Executive Vice President for Services, Ross Ireland, affirmed that deployment of the optical network in SBC's region will be affected by "regulatory judgments."[6]

c. Ivan Seidenburg, Verizon's President and Co-CEO, stated:

> "The establishment of a national policy that removes inappropriate regulation from broadband services will result in dramatic increase in broadband availability and usage. In fact, we estimate that the adoption of better public policy would increase the number of additional households and businesses that could receive broadband services from Verizon during the next three years by 50-75% over the number that would receive service if current policies exist."[7]

d. A second important and equally disheartening observation from the chart is that 78% of the ILECs competitors have built their FTTH networks in locations where the incumbents operated but did not have broadband capabilities available to be resold. This implies that when broadband UNEs are available, CLECs will choose to resell ILEC services as opposed to construct their own facilities-based competitive broadband networks.

VI. THE FCC SHOULD REMOVE FTTH DEPLOYMENTS FROM THE SECTION 251 UNBUNDLING, RESALE, AND WHOLESALE PRICING REQUIREMENTS IN ORDER TO SATISFY ITS OWN SECTION 706 OBLIGATIONS TO ENCOURAGE FTTH DEPLOYMENTS

9. The FTTH Council recommends that the Commission find to remove FTTH deployments from the Section 251 unbundling, resale, and wholesale pricing rules. Such a finding would hasten the deployment of the FTTH networks necessary to satisfy consumer's demand for broadband as well as enabling never-before delivered advanced applications and services. It would also ensure that all carriers are guaranteed equal footing to construct new advanced networks by eliminating what is viewed as the single largest barrier to deployment of FTTH networks by ILECs. Such a finding will result in the dramatic acceleration of FTTH network deployments in America.

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[6] Liane H. LaBarba, *Pronto, part deux*, TELEPHONY at p. 14-15 (May 14, 2001).

[7] Ivan Seidenburg, President and Co-CEO of Verizon in a letter to Andy Grove, CEO and Chairman of Intel (July 5, 2001).

VII. THE FCC CAN PROMOTE FACILITIES-BASED COMPETITION AND ENCOURAGE FTTH DEPLOYMENTS BY IMPLEMENTING THE FTTH COUNCIL'S RECOMMENDATION

10. Section 251(d)(2) of the Telecommunications Act details the specifics of the "necessary" and "impair" standards. Assuming the ILECs are most interested in network solutions that are standards based, it is safe to assume that their FTTH solution of choice would be non-proprietary and therefore should be evaluated under the "impair" standard. The Commission found that a network element meets the "impair" standard if it includes:

> "…self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element materially diminishes a requesting carrier's ability to provide the services it seeks to offer."[8]

11. As is obvious in the attached list at Appendix B, the ILECs only account for 3% of the FTTH builds to date, clearly illustrating that they are not the dominant players in the FTTH market space. Interestingly, CLECs and municipalities are far ahead of the ILECs in FTTH deployments. Reason would therefore dictate that the CLECs have been successful in deploying FTTH networks without access to ILEC FTTH networks, which do not exist in any significant amount. This understanding supports the FTTH Council's view that CLECs have not been impaired by the lack of ILEC FTTH networks. If anything, CLECs have only been impaired by the current regulatory framework as they have only chosen to build their own FTTH network in situations where they could not resell ILEC DSL services.

VIII. CONCLUSION

12. The Commission has an obligation under Section 706 of the 1996 Telecommunications Act to encourage deployment of FTTH. However, despite cost parity, enhanced revenue generation potential and improved maintainability, deployment of such capability today is being retarded by unnecessary regulation.

13. It is the FTTH Council's position that in order to provide the American consumer with the best broadband connections possible, the Commission should encourage the deployment of advanced

[8] *UNE Remand Order*, para 51.

telecommunications capability by determining that Section 251 unbundling, resale, and wholesale pricing regulation should not apply to FTTH network deployments. Thus, by declaring FTTH networks as free from regulation, the FCC will fulfill the its Section 706 obligation to enable and encourage deployment of advanced telecommunications capability while preserving the pro-competitive spirit of the Telecommunications Act.

Respectfully submitted on behalf of our members,

THE FTTH COUNCIL

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ATTACHMENT A

Listing of the FTTH Council member companies:

3M	Adesta Communications
AFL Telecommunications	Agere Systems
Alcatel	AllOptic
Alpha Technologies	AMD Telemedicine
American Power Conversion	Anexion
Arris	Asset Analytics
Atlantic Engineering Group	Bechtel Telecommunications
Bristol Virginia Utilities	BroadbandConnect
Broadcom Group	Charles Machine Works
Chelan County Public Utility District #1	Cisco Systems
City of Green River	CommScope
CopperCom	Corecess
Corning Incorporated	Dalton Utilities
DTI Consulting	DynamicCity Metronet Advisors
Eagle Broadband	Essex Corporation
FTTX Systems	FiberCore
GLA Network Technologies	Gould Fiber Optics
IMC Networks	Irdeto Access
iWired	Luminent Incorporated
Marconi	MCSi
Motorola BCS	NEC Eluminant Technologies
Neptec Optical Solutions	Nexans
Oki Network Technologies	OFS Fitel
Optical Solutions Incorporated	Orius Corporation
Paceon	Packetfront Sweden
Philips Digital Networks	Pirelli Communications Cables & Systems NA
PurOptix	SBC Communications
Samsung Electronics	SandStream Communications & Entertainment
Science Applications International Corporation	Scientific Atlanta
Sumitomo Electric Lightwave	TDK Corporation
Team Fishel	Tropic Networks
TVC Communications	Tyco Electronics
Volex Incorporated	Wave7Optics
World Wide Packets	Zero dB

ATTACHMENT B

Listing of published, completed or planned FTTH deployments:

Market	Project or Company	City	State	ILEC DSL Available*	Status	Current Subs	Current Homes Passed	Planned Homes Passed
CLEC	Bear Creek Homes	Meridian	ID	No	Operational	10	10	326
CLEC	Broadlands	Loudon Co.	VA	Yes	Construction	-	-	1,100
CLEC	Canyon Hills	Lake Elsinore	CA	Yes	Construction	-	-	4,000
CLEC	Central Texas Techn.	Leander	TX	No	Operational	10	10	500
CLEC	Conxxus LLC	Central IL	IL	No	Construction	-	100	2,000
CLEC	Daniel Island Media	Charleston	SC	No	Operational	800	800	5,000
CLEC	Eagle Broadband	Austin, Houston	TX	Yes	Operational	10,000	24,000	24,000
CLEC	Evermoor	Rosemount	MN	No	Operational	10	10	1,200
CLEC	Greenfield Communications	Fullerton	CA	No	Announced	-	-	1,200
CLEC	Guthrie Telecommunications	Guthrie	IA	No	Operational	100	100	900
CLEC	Home Town Solutions	Morris	MN	No	Operational	650	650	3,000
CLEC	Lansdowne on Potomac	Leesburg	VA	No	Construction	8	8	2,200
CLEC	LPGA International	Daytona Beach	FL	Yes	Operational	10	10	5,000
CLEC	Nex-Tech	Almena, Norton	KS	No	Operational	650	650	3,000
CLEC	WINfirst	Sacramento	CA	Yes	Operational	100	100	500
ILEC	Bell South	Dunwoody	GA	Yes	Operational	400	400	400
ILEC	SBC	Mission Bay	CA	-	Announced	-	-	1,000
ILEC	Verizon	Brambleton	VA	Yes	Announced	-	-	680
Ind LEC	Blair Telephone Co.	Blair	NE	No	Operational	50	50	300
Ind LEC	Huxley Coop. Telephone	Huxley	IA	No	Operational	100	100	1,000
Ind LEC	Roseville Telephone	Roseville	CA	No	Operational	300	300	1,200
Ind LEC	Rye Telephone Co.	Colo City	CO	No	Operational	200	200	2,000
Muni	Borough of Kutztown	Kutztown	PA	No	Construction	-	-	2,200
Muni	Bristol Virginia Utilities	Bristol	VA	No	Announced	-	-	1,100
Muni	Chelan County PUD	Chelan Co.	WA	No	Operational	30	687	800
Muni	City of Palo Alto	Palo Alto	CA	Yes	Operational	70	70	70
Muni	Grant County PUD	Grant Co.	WA	No	Operational	1,800	6,000	6,000
Muni	Holland Bd of Pblc Wrks	Holland	MI	No	Construction	-	-	4,000
Muni	Provo City Power	Provo	UT	No	Construction	-	-	4,000
			Totals (not all-inclusive):			**15,298**	**34,255**	**78,676**

*** Based on company interviews and zip code search on DSLreports.com for broadband availability, a 'Yes' indicates that an ILEC provides DSL services somewhere in the cities zip codes.**